

CLAIMS

What is claimed is:

1. A method of managing a refrigeration system, comprising:
transmitting energy consumption, maintenance indicator, and food condition data from the refrigeration system to a management center;
analyzing said energy consumption, maintenance indicator, and food condition data at said management center; and
monitoring, diagnosing and prognosing the performance of the refrigeration system in response to said analyzing.
2. The method of claim 1, further comprising altering a configuration of the refrigeration system in response to said analyzing.
3. The method of claim 1, wherein said analyzing said food condition data includes calculating a food quality index.
4. The method of claim 3, further comprising alarming as a function of said food quality index.
5. The method of claim 1, wherein said analyzing said energy consumption data includes analyzing weather data.

6. The method of claim 5, wherein said weather data is historical weather data.
7. The method of claim 5, wherein said weather data is actual weather data.
8. The method of claim 1, wherein said analyzing said maintenance indicator data includes analyzing condenser condition data.
9. The method of claim 1, wherein said analyzing said maintenance indicator data includes analyzing compressor condition data.
10. The method of claim 1, wherein said analyzing said maintenance indicator data includes analyzing liquid refrigerant flood back data.
11. The method of claim 1, wherein said analyzing said maintenance indicator data includes analyzing relay output data.
12. The method of claim 1, wherein said analyzing said maintenance indicator data includes analyzing contactor count data.
13. The method of claim 1, wherein said analyzing said maintenance indicator data includes analyzing compressor run-time data.

14. The method of claim 1, wherein said analyzing said maintenance indicator data includes analyzing oil check data.

15. The method of claim 1, wherein said analyzing said maintenance indicator data includes analyzing air filter data.

16. The method of claim 1, wherein said analyzing said maintenance indicator data includes analyzing light bulb change data.

17. The method of claim 1, further comprising outputting a work order in response to said analyzing.

18. The method of claim 1, wherein said transmitting includes transmitting through a communication gateway to said management center.

19. The method of claim 18, further comprising post-processing said data at said communication gateway.

20. The method of claim 1, wherein said analyzing includes calculating a food safety index.

21. The method of claim 20, further comprising alarming as a function of said food safety index.

22. The method of claim 1, further comprising advising manipulation of the refrigeration system based on said analyzing.

23. The method of claim 1, further comprising locating the refrigeration system at a retail location and locating said management center at a remote location located remotely to said retail location.